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ABSTRACT

The Career Beliefs Inventory (CBI) is a counseling tool with the purpose of identifying beliefs as they relate to occupational choice and the pursuit of a career. The inventory can be administered individually or to a group ranging in age from grade 8 to adult. The CBI is a 96-item paper-and-pencil test written at an eighth-grade reading level. Items are grouped into 25 scales organized under 5 headings. All test items are in a Likert format. The materials are straightforward and easy to use. Scoring and interpretation are easy to understand if the computer-scoring services of the publisher are used. Hand-scoring is confusing, and the procedures are not outlined in the manual. Norms are available based on a sample of over 7,500 people in the United States and Australia, ranging from junior high students to employed adults. Evidence for test-retest reliabilities, face validity, and construct validity is reviewed. Strengths of the CBI include ease of administration, clarity of instructions, attractive appearance, and the organization of the test booklet and answer sheet. The recent introduction of the instrument makes the psychometric properties hard to evaluate, but the evidence for reliability and validity does not seem adequate. Further research focusing on reliability and validity would enhance the useful information generated by the CBI. (SLD)

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The Career Beliefs Inventory: A Review and Critique

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Title: Career Beliefs Inventory (CBI)
Author: John D. Krumboltz
Publisher: Consulting Psychologists Press, Inc.
Date of Publication: 1991
Time required to administer: 25-30 minutes
Selected costs (from 1992 publisher catalog):

- CBI sampler set (single copy of a Prepaid Narrative Report Answer Sheet for mail-in scoring, Test Booklet and Manual) -- $32.00
- Test Booklets: 1 pkg of 25 -- $30/pkg
  10 or more pkgs of 25 -- $28/pkg
- Prepaid Answer Sheets :
  1 pkg of 10 -- $40/pkg
  5 to 9 pkgs of 10 -- $38/pkg
  10 or more pkgs of 10 -- $35/pkg
- Non-prepaid Answer Sheets:
  1 pkg of 25 -- $12/pkg
- Scoring Booklet: -- $1.50 each
  1 pkg of 10 -- $20/pkg
- Scoring Keys: 1 pkg of the 12 keys -- $25/pkg
- Manual: -- $30.00
- Summary Statistical Data -- $30 ($\leq$250 clients)
- Data Collection on 5 1/4 inch disk -- $30 ($\leq$250 clients)

Brief Description of Purpose and Nature of Test

The Career Beliefs Inventory (CBI) is designed as a counseling tool with the purpose of identifying beliefs as they relate to occupational choice and the pursuit of a career. The inventory can be administered individually or to a group of people, ranging in age from eighth grade to adult. It is recommended for use by a qualified professional, and is applicable in evaluating future education, employment, and/or retirement issues.

The CBI is a 96 item pencil and paper test written at the eighth grade reading level. Items are grouped into 25 scales: (1) employment status, (2) career plans, (3) acceptance of uncertainty, (4) openness, (5) achievement, (6) college education,

(7) intrinsic satisfaction, (8) peer equality, (9) structured work environment, (10) control, (11) responsibility, (12) approval of others, (13) self-other comparisons, (14) occupation/college variation, (15) career path flexibility, (16) post-training transition, (17) job experimentation, (18) relocation, (19) improving self, (20) persisting while uncertain, (21) taking risks, (22) learning job skills, (23) negotiating/searching, (24) overcoming obstacles, and (25) working hard. The 25 scales are organized under 5 headings: "My Current Career Situation" includes scales 1 through 4, "What Seems Necessary for my Happiness" includes scales 5 through 9, "Factors that Influence my Decisions" include scales 10 through 15, "Change I am Willing to Make" includes scales 16 through 18, and "Effort I am Willing to Initiate" includes scales 19 through 25. All test items are in a Likert response format from "1" (strongly disagree) to "5" (strongly agree). Some items are reverse scored.

Practical Evaluation

Test materials are straight-forward and a strength of the inventory. Both the test booklet and the answer sheet have clear instructions and are self-explanatory, easy to read, and organized to avoid confusion. Scoring and interpretation is easy to understand if the computer-scoring services offered by the publisher is used. The scoring service is included in the price of the answer sheet.

Directions for hand-scoring are less clear and are not outlined in the Manual. Separate keys, which are plastic grids

overlaid on the CBI answer sheets, must be ordered to hand score the CBI. The handscoring process is not time consuming (an unpracticed scoring of the reviewer's CBI raw scores only required 7 minutes). Instructions for handscoring direct that scores be transferred to a scoring booklet. This reviewer did not have access to this booklet and can only speculate what the scoring booklet offers. The scoring booklet is not necessary to derive scale scores, however, since the Manual reports that scale scores for the CBI are 10 times the average item weight in each scale, i.e., the raw score for the scale, divided by the number of items in that scale, multiplied by 10. The utility of scale scores versus raw scores is not discussed in the Manual.

No specific qualifications are necessary to administer the CBI given the explicitness of instructions. Items on the test are logically related to the test purpose, although some items are more applicable for some age groups than others. Time required to take the test is relatively short. Some items appear redundant and may distract test takers. Interpretation of test results does require some knowledge of career counseling theory, although profiles received from the scoring service are fairly explicit.

Technical Evaluation

Norms reported as percentiles for the CBI are available, based on a sample of over 7,500 people in the United States and Australia. Norms are reported for groups ranging from employed adults to junior high school students. According to the Manual,

"precise norms are not necessary to interpret the CBI" since the purpose is to evaluate beliefs and determine how these beliefs may be causing problems for an individual. How congruent an individual's beliefs are with the "norm" may be irrelevant if those beliefs are not creating problems for that individual. Meaningful differences in performance on the CBI based on gender or ethnic background are not reported, although the sample size used to evaluate ethnic differences are small, ranging from 10 to 84 participants. Therefore, any conclusions regarding the performance of ethnic groups on the CBI are premature.

Test-retest reliabilities based on one high school sample and two college samples are reported. Coefficients ranging from .35 to .73 for the high school 1-month interval sample and .26 to .68 for the college 3-month interval samples are reported. Cronbach alpha reliability coefficients, based on eight groups, range from .16 to .84. Given the extraordinarily low number of items per scale, 2 to 8, the author reports satisfaction with the test-retest and internal consistency reliabilities. The CBI is not designed for selection or classification purposes and beliefs are not static, therefore, reliability is expected to be low according to the author. These arguments are not completely convincing. Some scales yield reliabilities too low for use in individual counseling.

Face validity for the CBI is supported on the basis that items were generated from asking people to report their beliefs. Concurrent validity for the CBI is based on correlating CBI scores

with self-reported measures of job and/or school satisfaction. The highest correlation coefficient is .41, with many of the scales not reaching correlation coefficients over .20. The author discusses the disadvantages of using satisfaction criterion as a variable for evaluation of concurrent validity for career beliefs.

No instruments are currently designed to evaluate career beliefs, therefore, construct validity for the CBI is evaluated against instruments related to career counseling, but involving different constructs. Instruments used for construct validation include: the Strong Interest Inventory (SII), the Self-Directed Search (SDS), the Myers-Briggs Type Indicator (MBTI), the Fundamental Interpersonal Relations Orientation -Behavior (FIRO-B), the State-Trait Anxiety Inventory (STAI), My Vocational Situation (MVS), and academic ability and interest as measured by the School and College Ability Test. Correlations between the CBI and instruments listed above generated an extremely small percentage of coefficients achieving statistical significance. Few correlation coefficients are in the .40's, some are in the .20's and .30's, and most are below the .20's. Given that the majority of the correlation coefficient values fall below .20, the author concludes that the CBI is measuring a different construct than that measured by other instruments. The discussion of those CBI scales which do significantly correlate with other instrument scales is lengthy and the reviewer refers interested readers to the CBI Manual.

A factor analysis with varimax rotation was performed on a sample of 1,404 respondents, 849 female and 555 male. From the factor analysis, four factors are defined: I. Belief that work is valuable vs. Belief that work has little value, II. Belief in exploring options vs. Belief in maintaining a consistent direction, III. Belief in the importance of self-reliance vs. Belief in the importance of seeking help from others, and IV. Belief in the importance of compliance vs. Belief in the importance of not being constrained. The rotated factor pattern is present in the Manual.

Summary Evaluation

Given the recency of this instrument (published in 1991), there are no outside reviews upon which to comment. Based on examination of the CBI, there are both strengths and weaknesses. Depending on the use of the CBI, the instrument could be seen as moderately priced to expensive. Answer sheets are prepaid at $4 each, which could be costly if used in a school setting with 200 students, for example. Self scoring is inexpensively available, though not clearly advertised or outlined. The Manual is inadequate in that information regarding scoring is negligible. As with other commercially available tests, the CBI requires separate purchases for materials such as the manual, answer sheets, scoring booklets, etc.

Strengths of the CBI include ease of administration, clarity of instructions, attractive appearance, and organization of the test booklet and answer sheet. Use of computer scoring provides

efficient, attractive, and easy to understand interpretations of the test. For researchers, the availability of data and statistical summaries on diskette is invaluable. Additionally, the CBI is readable, time efficient, and face valid. Because of the nature of the CBI, it is applicable for a broad range of populations.

Although norms are available for the CBI, the author argues that the importance of the CBI rests more in evaluating how beliefs held by individuals influence their career decision process. Still, presence of norms can provide useful information for counselors. For example, interpretation of the CBI without knowledge of how Hispanic high school males tend to respond may lead to a culturally insensitive evaluation.

The psychometric properties of the CBI are difficult to evaluate in light of the recent introduction of this instrument and therefore, limited research. Reliability of the CBI is affected by the limited number of items per scale, which influences validity as well (Anastasi, 1988). In the Manual, the author addresses the trade-off between test length and reliability, but does not discuss the relationship between low reliability and validity.

To this reviewer, test reliability and validity is one of the major weaknesses of this instrument. Construct validity is evaluated in terms of the relationship between the CBI and other measures which do not report measuring career beliefs. Declaring

that the CBI does not correlate with personality measures or career interests does not ensure that the CBI does measure career beliefs, however. In addition, because of low reliability reported for the CBI, validity correlation coefficients in the .20's to .40's may be as high as could be expected.

A final concern regarding the psychometric qualities of the CBI involves the grouping of the 25 scales into five headings based on "logical" association. Examination of the rotated factor matrix does not support the grouping of the scales into the five headings. Instead, the factor matrix supports a four factor structure, with scales grouped contrary to "logical" estimation.

In conclusion, the CBI is an easy to understand, readily administered instrument which proposes to investigate beliefs as they relate to career decisions and the world of work. From examining the CBI, it is clear that information generated from the CBI profile is unique and can be useful to career counselors. The CBI investigates different constructs than current career assessment instruments such as the Strong and therefore, could be most valuable when used in conjunction with other career investigation instruments.

The CBI would benefit from future research focusing on reliability and validity, as well as response differences on the CBI as they relate to gender and ethnic backgrounds.

References

Anastasi, A. (1988). Psychological Testing (6th ed.) New York: Macmillan Publishing Company.

Krumboltz, J.D. (1991). Manual for the Career Beliefs Inventory. Palo Alto, CA: Consulting Psychologists Press.